**WHAT IS CLAIMED IS:**

1. A semiconductor integrated circuit comprising:

a control block of a stored-program type;

a backup memory in which saved data is stored;

runaway detection means for detecting a program runaway in the control block; and

data transfer control means for exercising control so that data of the control block is saved in the backup memory when the control block operates normally, and so that the data that has been saved in the backup memory is restored to the control block, if the program runaway has been detected,

wherein normal operation is allowed to be resumed from midway in the program even in the case of the program runaway.

2. The semiconductor integrated circuit of Claim 1, further comprises:

another circuit block including a data storage portion,

wherein the data transfer control means further functions to exercise control so that data of said another circuit block is saved in the backup memory when the control block operates normally, and so that the data that has been saved in the backup memory is restored to said another circuit block, if the program runaway has been detected.

3. The semiconductor integrated circuit of Claim 1 or 2, wherein the data transfer control means controls saving and restoring of only critical data among all the data held in the control block and said another circuit block.

4. The semiconductor integrated circuit of Claim 1 or 2, wherein the data transfer control means further functions to stop operation of the control block when the data is

being saved in the backup memory and restored from the backup memory.

5. The semiconductor integrated circuit of Claim 1 or 2, wherein the data transfer control means is a DMA controller for controlling direct memory access operation.

6. The semiconductor integrated circuit of Claim 1 or 2, wherein the runaway detection means is a watch dog timer.

7. The semiconductor integrated circuit of Claim 1 or 2, wherein the backup memory is a non-volatile memory.

8. The semiconductor integrated circuit of Claim 1 or 2, wherein the backup memory is an external memory to the semiconductor integrated circuit.

9. The semiconductor integrated circuit of Claim 1 or 2, further comprises a restore flag for informing the control block that the data-restoring operation has been performed under the control exercised by the data transfer control means.

10. The semiconductor integrated circuit of Claim 1 or 2, wherein the backup memory is connected to the data transfer control means via a dedicated bus which is different from a bus for the control block, so that the control block does not have access to the backup memory.

11. The semiconductor integrated circuit of Claim 1 or 2, further comprises:

an event counter for counting the number of times that the program runaway has

been detected, and

a timer for, when the count value of the event counter has reached a predetermined value, halting operation of the control block for a given period of time and then resuming the operation.